

APPENDIX F

NWCFMP OPERATIONAL PROCEDURES

Purpose and Definitions – Sections 1 & 2

Operational Procedures for AMR – Sections 3 – 9

Projects and Polygon Designation – Sections 10 & 11

Cooperator Relations – Sections 12 & 13

Smoke Management Implementation Plan – Section 14

NWCFMP Break Points and Preparedness Levels

NWCFMP OPERATIONAL PROCEDURES FOR IMPLEMENTING APPROPRIATE MANAGEMENT RESPONSE WITHIN THE NORTHWEST COLORADO FIRE MANAGEMENT PROGRAM

April, 2002
Revised May, 2005

1. PURPOSE

This section outlines roles, responsibilities, strategies and procedures for the implementation of Appropriate Management Response (AMR) to wildland fire ignitions within the Northwest Colorado Fire Management Program (NWCFMP) areas. Specifically, AMR refers to the full range of actions taken and strategies applied to wildland fire from full suppression to wildland fire use.

It also outlines predetermined response, describes project planning, polygon identification for response to wildland fire, and recognizes fire-planning efforts by cooperators. In the future this document may be the vehicle by which cooperators define their operational procedures with NWCFMP.

2. DEFINITIONS

- A. Appropriate Management Response (AMR)-Specific actions taken in response to a wildland fire to implement protection and fire management objectives. AMR allows for a full range of strategies to be applied, from an intensive full suppression response to wildland fire use (wildland fire to meet resource objectives). The first response decision to be made is whether to have a suppression-oriented response or to allow the fire to burn to meet resource objectives (fire use).
- B. Suppression Oriented Response-a range of responses to a wildland fire, which range from full response to confinement of the fire.
- C. Full Response - A suppression-orientated response action that can include: control lines around the entire perimeter, (hot spot and cold trail may be considered completed line) including any spot fires, protection of interior islands, burn-out of fuels adjacent to control lines and mop-up to a standard adequate to hold under high fire intensity conditions. Full response objectives are based on a safe yet aggressive approach to achieve containment of the fire at the most practical size by the beginning of the next burn period. Fire behavior may dictate, at least temporarily, the utilization of natural barriers or indirect strategies. These strategies and tactics would include direct control.
- D. Confinement Response - The suppression-orientated strategy employed in appropriate management response where a fire's perimeter is managed by a combination of direct and indirect actions and use of natural topographic features, fuels, and weather factors. These strategies and tactics could include perimeter control.
- E. Wildland Fire Use (WFU) - The management of naturally ignited wildland fires, in predefined Fire Management areas (polygons), to accomplish specific pre-stated resource management objectives, as outlined in the approved Fire Management Plan (FMP) of each of the primary Federal Administrative Units within the NWCFMP. Strategies and tactics employed in a fire use action may reflect perimeter control and may include prescription control.
- F. Maximum Management Area (MMA) - The firm limits of management capability to accommodate the social, political, and resource impacts of a wildland fire. Once a Wildland Fire Implementation Plan (WFIP) is approved, during the Stage III process an MMA must be set and is not subject to change. MMA's may be predetermined in the Polygon description of the FMP or developed after a fire has been ignited. They may be developed at any Stage of the WFIP process, but must be established in Stage III. In the event the fire occurs in a preplanned MMA and the local unit determines that this MMA is not the best-suited alternative for the present conditions, a new MMA can be developed as part of the planning process. If the MMA is breached by the fire a Wildland Fire Situation Analysis (WFSa) process will begin.

- G. Polygon – A planning sub-unit within a Fire Management Area that represents similar resource values and objectives, fuel conditions with associated fire behavior, Social/Political concerns and economic considerations. Polygons are categorized as A, B, C or D areas, representing a continuum of Appropriate Management Responses from full suppression in A polygons, through Wildland Fire Use in D polygons.
- H. Minimum Impact Suppression Tactics (MIST)- for the purpose of this plan MIST is not intended to represent a separate or distinct type of fire fighting tactic but rather a mind set of how to suppress or manage a wildfire while minimizing short and long term effects from those actions. The concept of MIST is to minimize the suppression or management impacts on the landscape in a safe, timely, and effective manner consistent with ecosystem and fire management objectives. While MIST implies a greater sensitivity to the impacts to suppression and management actions, the tactics selected remain appropriate for the observed or predicted fire behavior, the values at risk, and fire fighter safety. While this mind set needs to prevail in the fire management resources no matter what the appropriate management response, individual determinations of tactics will be dependent on the specific situation and circumstances of each fire and inputs from resource advisors.

3. PREPLANNED ACTION

- A. Preplanned initial response guides are outlined by polygon and provide general direction to the initial attack dispatcher, ZFMO/AFMO, Duty Officer or acting when responding resources to fires within the NWCFMP Area. The initial response guides identify low, medium, and high response levels based on NFDRS indices (particularly energy release component), fire location, and planning levels.
- B. More specific environmental resource information is contained in the polygon descriptions and they should be referenced upon receipt of a fire report. Polygon information includes:
 - 1. Resource objectives including: desired vegetative state, burned acreage thresholds, location of critical/significant habitat, resources, or other resource concerns.
 - 2. Suppression constraints such as off-road vehicle use, limitation of retardant use, prohibition of mechanized line construction, and minimum suppression impact standards.
 - 3. Fire Management strategies based on fire condition levels or safety concerns.
 - 4. Prescriptive criteria for less than full response and Wildland Fire Use.
 - 5. Predetermined MMA's.
- C. A Daily briefing summary with preplanned response strategies will be prepared (at preparedness level II or higher) by the AFMO, Duty Officer or acting for the Craig Dispatch Center, Agency Administrators, Initial Response resources and Cooperators. Basic information in the daily briefing is to include:
 - 1. Fire condition class and preparedness level for appropriate initial response selection by Dispatch.
 - 2. General strategy guidelines for each Polygon category (A,B,C,D) based on preparedness and staffing levels.
 - 3. Daily-preplanned go/no-go decisions, for less than full response including fire use, which will be based on forecasted weather, prescriptive parameters, and available resources.
 - 4. Discussion between AFMO, FMO, and Zone FMOs will determine the preplanned decisions.
 - 5. Fire status summary from previous days activity, including: the number of fires, how many are contained, controlled, and out; and what strategies are being employed.

6. Fire behavior predictions and potential assessment with discussion of wildland fuel conditions and fire weather.
7. Assignment of resources, including pre-position/re-position points, fire assignments, and needs for aerial detection.
8. Recognition of hazards due to environmental or atmospheric conditions, a discussion on mitigation and safety measures needed to employ to address the hazards, and 6 minutes for safety.
9. In the event a Program-wide briefing is not provided it is the responsibility of the Zone FMO or their designee to provide a complete briefing to resources responding to any fire situation.
10. When off-unit resources arrive a qualified member of the receiving unit will provide them a briefing to apprise them of the local fire conditions, situation and safety precautions. An attempt will be made to offer all a briefing packet with information on local fuels, weather, hazards, and pocket card indicators of local conditions that have lead to significant events in the past.
11. During periods of high fire activity in planning level (PL) III, and during PL IV and V, an evening planning and strategy meeting for inputs for next day resource and logistical needs from IC's and ZFMO's will be held at the dispatch center office or via conference call.

4. INITIAL ACTIONS

- A. Dispatch actions upon report of a fire include, but are not limited to the following:
 1. Gather information from reporting party, record information for initial size-up input, and verify initial response information with first resources on scene.
 2. Determine location and appropriate polygon and confirm with field personnel.
 3. Respond appropriate type and number of resources based on initial response guides and availability.
 4. Receive initial size-up from responding resources and confirm polygon designation.
 5. Notify and brief Duty Officer and/or ZFMO.
- B. The responsibilities and actions of the AFMO, Duty Officer, or Acting include being available to disseminate information and encourage good decision-making from the best position logistically for the NWCFMU. This would entail considering the needs and recommendations of fire fighting resources, resource advisors, agency administrators, and dispatchers. This person will be available the whole shift or designate a fully briefed Acting with the authority to make comparable decisions.
 1. Review size-up information, prioritize resources, and confirm or modify initial attack resource response.
 2. Coordinate with all Cooperators of the NWCFMP during times of fire activity that may be multi-jurisdictional. AFMO or Duty Officer reviews and implements all agreements, MOU's, and annual operating plans with NWCFMP cooperators.
 3. When an incident occurs in an area that allows for fire use, the Duty Officer or acting will:
 - a) Review Polygon description for constraints, objectives, prescriptive parameters, and compare it to the current days preplanned strategies.

- b) Gather input from ZFMO, IC, and Resource Advisor and discuss options based on polygon parameters. Duty Officer or acting will primarily inter-face with Resource Advisor.
 - c) Ensure Stage I Decision Criteria checklist is completed and reviewed for all candidate ignitions.
 - d) In consultation with Initial Attack IC and/or ZFMO and Resource Advisor and/or Line Officer, determine or concur with Appropriate Management Response strategy.
 - e) Brief Unit FMO if Go decision is reached.
- C. In the event that the decision-making process and Decision Criteria checklist leads to the determination to allow a fire or fires to burn for resource objectives the Duty Officer will:
 - 1. Work with the Resource Advisor and Agency Administrator to verify initial AMR strategy.
 - 2. Review and verify documentation of Stage I analysis and continue documentation, when needed through Stage II and Stage III implementation.
 - 3. Notify Colorado Dept. of Public Health and Environment, Air Pollution Control Division of fire and its activity, and possible smoke impacts.
- D. Zone FMO duties generally entail coordination with dispatch and the Duty Officer, the ordering and logistical support of resources, tracking and conclusion of each incident, and assists with providing a safe work atmosphere within the zone.
 - 1. Notify dispatch and all appropriate parties in instances that preclude the ZFMO from being in a position to account for and communicate with the incidents within the zone, due to fire activity or other duties. In instances such as this a qualified designee should be identified and/or ordered to assist with zone coordination.
 - 2. Coordinates with Duty Officer or acting for allocation of resources between zones during times of fire activity or conditions of severity.
 - 3. Coordinates and makes recommendations to NWCMP Cooperators within the zone for safe, effective operations in inter-mix jurisdictional areas.
- E. Incident Commander: In the interest of timely decision-making in relation to a going fire, the IC must be given latitude at the site to make decisions as to the AMR and the tactical approach to a given fire. Field decisions may preclude any others when public or firefighter safety is a concern. The IC's responsibilities include but are not limited to:
 - 1. Accurately locating the fire in order to determine the fire management polygon. Assessing other issues, on the fire ground, that may affect the AMR determination given the fire location.
 - 2. Timely size-up information and ground conditions reported back to dispatch, ZFMO, Duty Officer or acting in order to facilitate final decision on AMR.
 - 3. **The IC is ultimately responsible for the safety and welfare of all resources assigned to the incident.**
- F. Line Officer responsibilities include reviewing daily fire briefing with Duty Officer or ZFMO and being available or assigning an acting designate with authority to approve fire use for resource objectives.

G. In order to select an appropriate strategy, certain considerations should be examined, including, but not limited to:

1. Threat to fire fighter and public safety.
2. Threat to private property, natural resources, and improvements.
3. Fire cause. Currently, NWCFMP only recognizes natural ignitions as candidates for fire use to achieve resource objectives.
4. Land ownership and potential for the fire to escape, polygon, MMA, or jurisdictional boundaries.
5. Rate and direction of spread, flame lengths and resulting fire intensities.
6. Fuel types, continuity and defensible natural barriers.
7. Current and forecasted (48 hours) weather.
8. Fuel moisture, drought conditions, NFDRS indices, and Haines Index.
9. Smoke impacts and current permits.
10. Local, Regional and National Planning levels.(see RMA Mob Guide or Natl. Mob Guide)
11. Available initial response and fire use resources.

5. SUPPRESSION ORIENTED ACTIONS

(Guidelines for AMR in Northwest Colorado Fire Management Program)

Within the NWCFMP a suppression-oriented action should be taken on the following situations:

- A. Fires where hazards associated with indirect attack can not be mitigated.
- B. A full suppression response will be implemented when a wildland fire threatens private property without a land owner agreement for fire use, or identified resources of concern, and improvements that cannot be mitigated. Appendix B contains specific guidelines as to allowable distance from fire location to private property and jurisdictional or polygon boundaries.
- C. Fires that could (based on current and expected fire behavior) exceed the fire size limit for the polygon, will receive a suppression oriented response.
- D. Fires where a defined and defensible MMA cannot be readily determined or safely established will receive at least a confinement suppression response.
- E. All suspected Human-caused starts will receive a suppression oriented response.
- F. Fires in fire management polygons that do not allow for fire use will receive an appropriate suppression-oriented response.
- G. When Duty Officer, FMO or Actings are not available, the IC should consider a suppression oriented response.

- H. A suppression-oriented action will be selected if the fire goes from Stage I and the Appropriate Agency Administrator, or acting, is unavailable to approve Stage II implementation.
- I. A suppression oriented response will be considered when contingency or overhead resources are not available, or local resources become too over-extended to manage fire use.
- J. The NWCFMP will manage no more than five WFU fires or complexes at any one time. New starts may be considered for fire use, but if a new fire is approved for fire use one of the five original fires will receive a suppression-oriented action.
- K. A suppression action will be taken if smoke permits are not in place, if smoke prescriptions cannot be met, or if impacts described in the State issued Smoke Permit can not be mitigated.
- L. The approval and documentation process for fire use to achieve resource objectives is found in the Wildland Fire Use Implementation Procedures Reference Guide, 2005. Documentation for confinement strategy fires may be documented on the Stage I and Stage II Limited Response forms. A WFSA may be chosen for confinement fires if it is felt that a more in depth analysis of the fire situation is required.
- M. The selected management strategy may be changed based on changes in fire behavior, weather, resource availability, boundary (management action points or MMA) or smoke impact concerns.

If there is any uncertainty as to whether a fire meets the above criteria or if consensus cannot be reached on management strategy, the fire shall receive a suppression-oriented response.

6. PROCEDURES COMMON TO WILDLAND FIRE USE AND CONFINEMENT SUPPRESSION STRATEGIES.

Confinement response fires should be monitored as agreed to by the IC and Agency Administrator and WFU fires should be monitored according to the Periodic Fire Assessment frequency. Results of the monitoring effort should be documented and be included in the final fire report/package. An ICS-214 Unit Log is a recommended form for documentation on these fires. If a change in the monitoring schedule is indicated, this will be noted and approved by the appropriate official. Monitoring of inactive fires may be done by aerial observation, lookout towers, or from a distant vantage point. When safe, active fires should be monitored by on-the-ground personnel. Input to the assessment report should include weather and fire behavior observations. Minimum qualifications for individuals authorized to monitor fires are ICT4. Prescribed Fire Monitor training is not required but is highly recommended. The first documentation completed on all ignitions is the Initial Fire Size Up Card. Rationale for AMR chosen by first on scene should be included there. For example, in the case of confinement action, the strategy may be chosen for reasons of fire fighter safety, available resources, or least cost suppression option especially where natural confinement is a high probability and such action is consistent with management objectives.

7. WILDLAND FIRE USE IMPLEMENTATION.

This portion of the implementation chapter deals more specifically with Wildland Fire Use. All Fire Use implementations and actions will follow the "Wildland Fire Use Implementation Procedures Reference Guide, 2005" and appropriate agency-specific policies.

A. Stage I.

- 1. The NWCFMP Initial Fire Size Up Card is completed by the first on scene and relayed to dispatch. Recommendations on a management strategy are made by the IC/ZFMO and confirmed by the Duty Officer or acting.

2. If the Initial Fire Size Up Card indicates a WFU candidate and there is concurrence from the Duty Officer, the Stage I process will be completed. This process may be completed by the Duty Officer, FUMA, or ZFMO with input from the Resource Advisor (if available), ZFMO and/or initial response IC. The completed Stage I WFIP is then approved by the Agency Administrator or Acting. Stage I must be completed within 8 hours of the confirmed fire detection and Initial Fire Size Up.
3. Initial Actions for a go situation include:
 - a) Assign a qualified manager for the WFU (as determined by the Fire Use Manager Decision Chart) to make a field inspection of the fire to confirm the strategy and complete the Stage I Plan. If a FUM1 or FUM2 is ordered from outside the NW Colorado Interagency Fire Management Unit, the Initial Attack IC, ZFMO and Duty Officer will prepare all necessary Stage I documentation. Note: If a FUM1 or FUM2 is ordered from outside the unit, he/she should have an arrival time within 24 hours of the completion of Stage I.
 - b) Consider assigning a Resource Advisor for the Incident. If assigned, the Resource Advisor and FUMA will take responsibility for predictions, documentation, and advise on strategy to the Agency Administrator.
 - c) If indicated by the Planning Needs Assessment Chart, begin the Stage II Plan.
 - d) Consider running fire behavior predictions based on current and expected weather.
4. Time frame for completion of Stage I is eight hours after on-scene size up. If a decision cannot be made in that time frame a suppression-oriented action will be taken.
5. Management Action Points may be discussed and documented by the IC, ZFMO, Duty Officer, and FUMA (if on unit) after the Go decision is made for fire use.

B. Stage II.

1. The Wildland Fire Use Implementation Procedures Reference Guide, 2005 requires that the Stage II Plan be completed within 48 hours after the need is indicated by the Planning Needs Assessment. Plan development and implementation is the responsibility of the assigned FUMA. Additional resources for analytical and documentation purposes should be ordered, as needed. Stage II documents specific management objectives, describes the Fire Situation and associated management concerns, identifies management actions, estimated costs, and documents the Periodic Fire Assessment.
2. Short-term fire behavior predictions are completed based on observations from the fire, spot weather and/or short term (48 hour) fire weather forecast.
3. Management actions should be developed and described for the incident. Management actions could be predicted weather, spatial distance(s), environmental conditions, or geographic features that would warrant on the ground actions and/or further planning efforts.
4. The Periodic Fire Assessment will be completed at the approved assessment frequency. This assessment will include the Decision Criteria Checklist, Wildland Fire Relative Risk Assessment, Wildland Fire Use Management Assessment, and Signature Page.

C. Stage III:

1. Establish a clearly defined and defensible MMA boundary. Once the MMA has been determined,

the boundary is fixed. The MMA boundary can be determined at any time during Stage I, II, or III. The Stage III Plan will be completed within 7 days after the need is indicated by the Planning Needs Assessment.

2. Complete long term fire behavior predictions, such as RERAP or FARSITE.
3. Complete long term Risk Assessment.
4. Complete Long Term Implementation Plan.
5. The Periodic Fire Assessment will be completed at the approved assessment frequency. This assessment will include the Decision Criteria Checklist, Wildland Fire Relative Risk Assessment, Wildland Fire Use Management Assessment, and Signature page.

8. ESCAPE FIRES AND THE WILDLAND FIRE SITUATION ANALYSIS

- A. The Fire Staff, Resource Advisors, Initial Attack IC's and Agency Administrators will implement the following procedures (Wildland Fire Situation Analysis) in the event of an escaped wildfire. A fire will be declared an escaped fire when any one of the following situations occurs.
 1. Any suppression oriented fire that is not contained by the second burn period. An exception to this standard may apply to polygons that identify allowable acres to burn under a fire use or containment strategy. In such cases, at the discretion of the Agency Administrator, a WFSA may not be required. Documentation of decision for fires burning multiple periods within the constraints and objectives of the appropriate polygon should be completed on the Stage I and II Limited Response forms.
 2. Any fire may be declared an escaped fire as soon as it becomes apparent that containment, or management within acceptable boundaries, is not likely. In some situations, this declaration can be made at the time of detection due to extreme fire behavior, hazardous terrain, or lack of fire fighting resources.
 3. Any fire placed into wildland fire use or confinement that escapes the MMA, or exceeds the polygon acreage limitations will be declared an escape and a WFSA will be prepared.
- B. A WFSA will be completed once a fire is declared an escape. The format to be used is the standard software package developed for implementation of the new fire policy.
- C. Prior to each operational period and until containment is declared, the Agency Administrator and fire management personnel must review the WFSA and determined if the document is still valid. If the WFSA is not valid, a revision of the existing document or a new WFSA should be completed. All completed WFSA's will become part of the final incident package.

9. TRANSITIONS TO LARGER ORGANIZATIONS FOR MANAGEMENT OF ESCAPE FIRES

- A. The normal transition of fires on the Unit is from Type 4 or 5 to Type 3, and usually occurs in the first or second burn period. Type 5 fires generally require one or possibly two resources for a few hours. Type 4 fires are usually contained within the first burn period, and may require one to two additional resources. Most fires on the Unit are successfully suppressed at the Type 4 or 5 level. Most transitions on the Unit between Type 4 and 5 fires are fairly transparent to the assigned resources and management. Fires requiring line building and holding resources for multiple days generally indicate a Type 3 level of complexity. However, under appropriate management response, some low complexity fires may burn uncontained for multiple burn periods. Resources committed to extended Type 4 incidents may range from fire monitors to one to three engines with an IC and possible logistical support (base/spike camp manager). Minimum qualifications for an IC on an extended Type 4

fire with line building resources actively assigned to the line is ICT4 plus Strike Team/Task Force Leader, with replacement to an ICT3 as available.

Type 3 incidents on the Unit typically include two or three engines, one or two hand crews, and a helicopter and/or SEAT. Type 3 incidents seldom exceed a total of 100 persons. Typical IMT organizations include an ICT3, Operations and Logistics function. On occasion, based on complexity, other command staff functions, such as Plans, Safety, Finance and Information are filled as well. Qualifications standards for the Command Staff positions follow NWCG guidelines for Type 3 incidents. General staff positions follow Red Book guidelines in that the Operations Section Chief is DIVS qualified while Plans and Logistics are Unit Leader qualified. Minimum qualifications for the Finance function, when filled, may vary from a Time Recorder to a Unit leader level.

Incident Complexity Analysis (ICA) discussion is in the Interagency Standards for Fire and Aviation Operations 2004 (Red Book) on page 10-6. The ICA form for Type 3, 4, and 5 fires, the one most commonly used by the Unit, is in Appendix M-1. The ICA form for Type 1 and 2 incidents is in the Red Book, Appendix L-1. Completion of one of these analyses should allow the opportunity to mitigate an emerging situation(s) through selection of an appropriate level incident management team. A change in current strategy or tactics may also be indicated through this analysis. The ICA is a basic tool to assist managers and on the ground personnel in determining the level of management required to safely and effectively manage the incident.

- B. The NWCFMP may provide the first level of incident management organization above the initial response resources through the various Type 3 cadre lists maintained on the Unit. The positions required to be filled on the command and general staff will be determined by the initial attack IC in conjunction with the Zone FMO and Unit FMO or Duty Officer. This phase of resource ordering will follow processes outlined in the Unit's mobilization guide. If needed positions cannot be filled from within the Unit, the normal ordering processes from outside the Unit will be followed.

As the incident and complexity continue to escalate beyond these initial discussions and orders, the responsible Agency Administrator will be integrated into the decision-making processes. As the total personnel and/or complexity increases, additional support and supervisory positions may be requested by Incident Management Team (IMT), Unit Fire Managers, or Agency Administrator. If the incident and complexity continue to grow, the ICA should be reviewed to determine if a Type 1 or 2 IMT is indicated

- C. Type 1 and Type 2 Incident: The FMO, Agency Administrator(s) and/or affected Cooperators will jointly agree to the need for a Type 2 or Type 1 Incident Management Team prior to the placing of an order. If private lands are involved, the State Forest Service may be requested by the County Sheriff to give a determination of availability of EFF funds. Appropriate County Commissioners and Sheriffs will be involved with the analysis of need for an IMT 1 or 2 in cases that could affect their jurisdictions. In those cases, discussions will also include cost share agreements, determination of a single Agency Administrator (Lead Agency), and if unified command will be used. Once the decision has been made to order a team, the process will follow guidelines found in the Regional Mobilization Guide.

10. PROJECT PLANS

- A. In order to implement fire use in the six primary Federal Administrative Units of the NWCFMP, and in response to the National Fire Initiative for Communities at Risk (2000), several projects have been identified to reduce hazardous fuels and enhance resources on these units. With approval of the NWCFMP Fire Management Plan these projects will be a matter of record, in a general sense. That is, these fuels, pre-suppression, and resource projects are generally identified by area and acres but not by specific projects within this Plan.

11. POLYGON IDENTIFICATION BETWEEN UNITS

- A. In the interest of keeping polygon definition and description consistent for public and Agency non-fire personnel understanding, the lettering for the polygons in NWCFMP individual FMP's are the same. That is, all A,B,C,D polygons have a consistent numbering system from A1... for each unit. Because all the units work in the same fire response area the polygon numbering system will be re-ordered for dispatching purposes. For example: The Little Snake Field Office land base polygon numbering will begin with the letter designator for the polygon then the number dash and letter L for Little Snake. For example, the B1 polygon as described in the FMP and EA will be denoted as B1-L for dispatching and fire response. This will be the same for all the polygons regardless of letter designation.
1. The White River Field Office will use the same letter/number/-lettering system as above but with the letter W following the dash (i.e. B1-W).
 2. The letter numbering system for the polygons in these two areas, as well as, all the primary Federal Administrative Units within NWCFMP, and any other Cooperators lands within the fire response zone will be reviewed for restructuring as more AMR plans are approved. The NWCFMP Fire Management Plan will be reviewed annually and revised as needed. The letter numbering system for the polygons should be addressed through dispatch at these reviews.

12. PRE-DETERMINED RESPONSE AND MMA'S ON BOUNDARY OF DINOSAUR NATIONAL MONUMENT

- A. Standard operating procedures for Dinosaur N.M. and Northwest Colorado Fire Management Program (NWCFMP) 2002.
1. Engine's stationed at Dinosaur Headquarters and Lodore will be available on a daily basis as part of the interagency engine mix. No prior approval from Dinosaur is required to assign the engine to an incident outside of monument lands. NWCFMP will insure Dinosaur NM is covered if resources are needed on NPS lands.
 2. Engine foremen will participate in conference calls. Update status with NWCFMP per protocol. Extended hours will be based on NWCFMP step-up plan and if Dinosaur wants to extend locally we will coordinate with NWCFMP.
 3. Lookouts will notify NWCFMP Dispatch Center (CIDC) with initial smoke report; they will then dispatch the closest resource. NWCFMP Duty Officer will then contact the Dinosaur duty officer to discuss the AMR for the incident.
 4. All interagency suppression resources will respect the lands within the monument by staying on roads, utilizing minimum impact strategies, be sensitive to rare and endangered species. If in doubt make an effort to find out before taking action.
 5. Areas within the monument which are total suppression zones, i.e. Polygon "B" in BLM terms are T8N R102 W NE/SE SEC 31, T8N R102 W SEC 5, 8, NE/NE 17, T9N R102W CENTER SEC 20, T6N R101W SEC 11,12,7 NW/SW OF 18, T6N R99W SE ¼ 21, T6N, R101W SEC 15,14,21,22,23,24 SW 13, T6N R103W SE SEC 10, 11, SW SEC 12, NW/NE SEC 14, 13, 18, 19, T7N R103W NE SEC 32, NW SEC 33.

B. For numerous years the National Park Service, including Dinosaur National Monument, has had a policy of allowing fires to burn in their historic pattern. Because of this policy some fires in the past have burned from the Monument onto areas covered by the Little Snake Field Office Fire Management Plan (LSFO FMP). It is expected that this will continue to happen in the future. As much as possible, the LSFO FMP has attempted to buffer the boundary with the Monument by polygons that have some fire use stipulations. In the case of the Douglas Mtn., Limestone Ridge Area the Monument has proposed a series of ridgelines to use as a preplanned initial response area on fires crossing from Monument to BLM lands. This would: a) enable fires to more closely realize their historic final fire size. b) allow both Agencies to have a preset direction on a portion of their common boundaries with respect to fire response and interagency communication. c) to examine and predetermine with firefighters and fire managers the tactically superior ground to occupy for firefighter safety and resource strategy.

Considerations for planning responses and field personnel in the predetermined MMA areas.

1. Although ridgelines were followed to draw up the MMA, several draws and canyons exist along the MMA line. These areas could be potential safety, fire behavior, and control problems.
2. Some areas of private land may exist in MMA boundary. Special stipulations may apply to response type due to the land status.
3. Due to climatic, atmospheric, or environmental conditions, the fire maybe outside the prescriptive parameters given for the polygon in the LSFO FMP. If these conditions exist the Duty Officer or acting will address the AMR when advised that the fire is likely to cross onto BLM lands.
4. In the case of a fire burning on BLM lands and threatening to cross onto the Monument, the Duty Officer or acting will notify the Monument and a determination of the appropriate response will be made jointly.

13. MOFFAT COUNTY FIRE MANAGEMENT PLANNING AND IMPLEMENTATION

- A. Moffat County has an appropriate management response FMP dealing with private lands within the county. This document has been worded to reflect the desires of some private landowners who wish to allow natural fires to be managed across federal, state, and private boundaries.
1. The County Sheriff maintains responsibility for all fires in the county not on federal lands. This position or its designee will act as Agency Administrator in relation to fires occurring on those lands.
 2. The County FMP has an Implementation Guide, which mirrors this document for fires that cross jurisdictional lines. The polygon descriptions for the lands they are responsible for are stated in the County FMP.
 3. The County Sheriffs' Office and/or County Natural Resources Department will be responsible for landowner contracts and agreements called for in the Moffat county FMP and will plan daily with NWCFMP during planning level III and higher. Private landowner contacts during fire operations will be the responsibility of all the agencies involved in the management of the fire.
 4. Fuels project planning and implementation for protection purposes called for in the FMP of the federal agencies and the county will be a coordinated effort.

14. SMOKE MANAGEMENT IMPLEMENTATION PLAN

This section is meant to summarize the roles and responsibilities of the NWCFMP in terms of smoke management for all the fire activities overseen by the Program. Currently the stipulations and safeguards against adverse effects of smoke emissions are not compiled in one section in any one of the documents that support or certify the Program's efforts. This section will serve to compile all the different aspects covered in the Land Management Plans, Unit Fire Management Plans and Environmental Analysis's, burn plans, and all the other documents which have had direction toward smoke management in the past. This section is meant to serve as a checklist for burn bosses, incident commanders, and other fire managers for issues involving smoke impacts from prescribed burning, suppression, and

wildland fire use. This section will be updated as needed and as situations change over time. Also see Air Quality and Smoke Management section (NWCMP FMP IV, pgs. 82-86).

Prescribed Burning:

- All prescribed burns on federal lands will have an approved smoke permit issued by the Pollution Control Division of the State of Colorado. The permit is issued after the Division reviews the smoke management section of the burn plan and the application, which includes alternatives to burning and the risk of smoke intrusions, has been submitted and evaluated. Modeling to demonstrate amounts of emissions and impacts will be submitted to the Division for analysis.
- The application process for this permitting is well documented at Craig Fire Center
- All Burn bosses carrying out burn activity within the Program Area are required to notify the Division of intent to burn prior to ignition, check permit constraints to acknowledge that the conditions of the burn are congruent with the conditions of the permit, and notify the Division if unexpected results and if adverse smoke impacts are a possibility.
- The burn boss is further responsible for all notifications of adverse impacts to public or other emergency organizations as the situation requires
- The burn boss also has the responsibility to let the division know the accomplishment post burn and any lessons-learned concerning smoke impacts that occurred during the operation.
- Generally, these stipulations are within the agreement and procedures set up by the State and in place for “significant users” within the State’s Smoke Implementation Plan

Wildland Fire use:

Roles and Responsibilities of Fire Managers to Division of Pollution Control of the State of Colorado concerning WFU:

- The NCFMP is committed to notify the Division no later than 2 hours after the start of the next working day and daily thereafter of the occurrence of a wildland fire use to meet resource objectives that is greater than 5 acres in size. With notification the location and expected fire activity with relation to smoke impacts and sensitive receptors is to be reported. This responsibility will be with the Fire Use Manager or that person’s designee. In the Fire Program’s organization this responsibility lies with the Duty Officer, Fuel Specialist, ZFMO or if a management team is in place this responsibility will lie with a designated individual within their structure, usually the Fire Behavior Analyst or Long Term Analyst.
- Fire conditions must be evaluated daily and the agency administrator that reviews the Periodic Fire Assessment sheet for signature as to the continuation of management of the fire, will be briefed on the conditions with respect to the smoke permit. This information will help determine if the agency administrator wants the fire to continue as a WFU.

Once a WFU reverts to a suppression incident, a Wildland Situation Analysis will be completed by resource and fire managers along with the concurrence and signature of the agency administrator for the land on which the incident is occurring. The suppression strategies and tactics used for the incident will be determined for the situation at the time and will consider smoke impacts as well as other fire objectives such as; fire fighter safety, values at risk, realistic containment barriers, cost, and resource objectives.

- Considerations and trade-offs to management of WFU vs. other forms of treatments are discussed in the NCFMP Fire Management Plan and the parent documents to that Plan. Essentially, the C & D polygons of four of the administrative units (Little Snake FO and White River FO-BLM and Dinosaur NM-NPS) currently allow for WFU within their appropriate management responses, under closely monitored conditions. White River FO also has four B polygons, which allow for some managed fires to a small final fire size class. The areas outlined for WFU, which may produce smoke emissions of concern, are located in very remote, sparsely populated, and mainly large expanses of federally administered lands.
- Receptors, which could be potential sources of sensitivity to smoke emissions, are identified within the FMP, but will be re-iterated here for efficiency in management decisions. For all the areas of NWCMP that currently allow WFU the sensitive receptor list follows (this list is dynamic and could include others dependent on fire size, emission production, and direction of travel): In Colorado: Rangle, Meeker, Craig, Hayden, Steamboat Springs, Oak Creek, Kremmling, Fruita, Grand Junction, Rifle, Glenwood Springs. In Wyoming: Laramie and Cheyenne. In Utah: Vernal and Moab. These are all population centers that should be

considered in terms of adverse smoke emissions. Three class 1 airsheds also exist within or in close proximity to some of the Program's D polygons, they are: Mt. Zirkel, and Flattops Wilderness's and Rocky Mt. Natl. Park. The impact of concern from smoke production in these areas is temporary visual impairments in federally listed class I airsheds. The goal is to manage impacts from smoke on visibility in Class I areas, as to not impair or worsen the most tainted 20th percentile days. This is achieved by not allowing more than four consecutive days of significant impacts. Transmissometer data is routinely downloaded from the previous day at the site by the Air Resource Specialists. This information can be compared too long-term averages for the site in question. As the state begins to develop Smoke Implementation Plans for Regional Haze, they will need to determine what portion of smoke from fire can be attributed to the natural condition and those which are anthropogenic or man-made. Guidance has been developed by the Western Regional Air Partnership for assigning these levels. It maybe found that all or portions of emissions from a fire occurring in a Wilderness for the purpose of maintaining the ecosystem, for example, would be considered natural. Fire use in other portions of the Fire Program area may not qualify as maintenance until a subsequent fire episode. The Fire Program only allows for natural ignitions (lightning) to be considered for wildland fire use. The emissions from these natural events may be indexed as part of the baseline or natural haze that the division of air quality is defining, because some level of emissions always existed in nature due to wildland fire.

- Smoke risks and risks of adverse impacts from smoke emissions are difficult to describe when random events (lightning) is the source of the ignition. There are two basic types of fuels within the NWCFMP area and some modeling of the emission amounts from these fuels (Westside-pinyon/juniper-sage/grass; and eastside-spruce/fir heavy dead/down) have been looked at with typical to high end prescription burning in C & D polygons. Current models are believed to conservatively express the amount of particulates emitted by smoke from wildland fires. The current health standards for air-borne particulates is:
 - PM₁₀ = 150 µg/m³ and PM_{2.5} = 65 µg/m³ average in a 24 hr. period.
 - A modeling effort has revealed that due to intense heat and instability the smoke emissions are lofted very high into the air and the most concentrated impacts of the emissions on the ground are very close to the edge of the fire (within ½ mile for Westside and within 2 miles for eastside fuels). Typically the WFU's that would be managed in these C & D polygons would be of much longer distances from sensitive receptors and the general wind field (SW) would transport the smoke away from those receptors. At a minimum Fire Managers will have smoke production (smoke column) visually monitored for direction and fall out to insure that no adverse affects will be observed down wind from a WFU event. The recommendation is that, if through monitoring, a sensitive receptor may be adversely impacted by emissions that exceed the particulate limits stated above, a data ram particulate monitor should be stationed in that area to collect information on the levels of particulates. Public notification of potential impacts should then be instituted.
 - Public notification should be through the dispatch office at Craig and the Mitigation and Education Specialist position at the Craig Fire Center, who will contact the emergency services of the community at risk.
- The meteorological, atmospheric, and fire behavior conditions under which a WFU is allowed to be managed is covered under the management objectives for each polygon and was conceived with resource and fire managers input for what was the best future condition of the site, smoke impacts were part of that analysis. It is also covered in the go/no go decision process for each single event, which takes into consideration many different aspects that might be involved in the management of the incident including smoke impacts. There is a complexity analysis that includes adverse affects and impacts of smoke emissions. And there is a periodic review and signature by the line officer that the management of the fire can still be carried on with the management actions that are in place for the incident. Any Managed Fire to meet resource objectives (WFU) will be transitioned into a suppression event upon violation of the smoke permit or if monitoring, fire behavior/smoke modeling predictions indicate that an adverse impact to a sensitive receptor is inevitable.

Both wildland fire suppression and Wildland fire use are considered emergency activities by federal land management agencies. Because they are emergency activities the safety of individuals on the incident and the public are the paramount objective in the management of the incident.

Wildland Fire Suppression:

- As stated in the FMP the over-all objective is for public and fire fighter safety. The Wildland Fire Situation Analysis is the tool that is used to evaluate the incident and develops the strategies to be used on the incident with many inputs and variables taken into consideration. Among those considerations is the health impact of smoke on the public and the firefighters on scene.

This document is meant to outline procedures found in various places throughout the FMP and the parent documents into a concise format for managers to review with respect to compliance to smoke management regulations. The monitoring of all fire activities is carried on through different forms of documentation; WFSA for fire suppression, WFIP for wildland fire use, environmental assessments and burn plans for prescribed burn treatments. These monitoring and predictive documentation formats are the same as contained within the Federal Wildland Fire Policy Implementation Guide.

NWCFMP Break Points and Preparedness Levels

PREPAREDNESS LEVEL RATIONALE

Preparedness Levels: Representative locations were divided into two sections, one on the Forest and the other on the West side of the response area.

The west side chart is a compilation of 10 year weather files of the Ladore, Dragon Road, and Pinto RAWS stations. All were analyzed against Ladore with no significant difference in ERC break points, number of days in %tile group, or ERC range.

The other station analyzed in the west was Great Divide which is a T model and the break points for that station are on file.

West Side Of Response Area

	% tile ERC range	Break Point Percentage	ERC range	1000 hr. FM/w associated range	Days in range
PL-1	0% to 5 %	5%	0-30	18+	86
PL-2	5.1%-25%	25%	30.1-47	14,15,16,17	343
PL-3	25.1%-75%	75%	47.1-74	11,12,13	856
PL-4	75.1%-95%	95%	74.1-86	8-9	378
PL-5	95%+		86.1-100+	7 and below	51

Since the break points on the Forest side would have brought the over-all average down to a level that the West side indicators would have been negatively affected they were run separate. They tend to peak out at a lower ERC numeral and break point.

Below is the register for Dry Lake from the same period; 4/1/91—10/31/00.

East Side Of Response Area

	% tile ERC range	Break Point Percentage	ERC range	1000 hr. FM/w associated range	Days in range
PL-1	0% to 11 %	11%	0-15		163
PL-2	11%-28%	28%	15.1-30		260
PL-3	28.1%-87%	87%	30.1-59		941
PL-4	87.1%-97%	97%	59.1-68		105
PL-5	97%+		68.1-84+		48

NORTHWEST COLORADO FIRE MANAGEMENT PROGRAM PREPAREDNESS LEVELS

Preparedness Levels are established by the NWCFMP Board of Directors based on current and forecast burning conditions, fire activity, resource availability, and fuel conditions. Refer to RMG for Rocky Mountain Area Interagency Preparedness Levels.

Preparedness Level Definitions:

Preparedness Level I - Little or no fire activity, preseason preparedness duties being accomplished, IA resources less than 25% committed.

Preparedness Level II - Low to moderate fire activity, interagency involvement occurring, potential for Class B or C fire exists, IA Resources 50% committed.

Preparedness Level III - Multiple fires occurring, increased potential for escaped fires Class C or larger, IA resources 75% committed.

Preparedness Level IV - Multiple A, B, C, and large fires, extended attack occurring, all IA resources committed, predicted LAL 3 or Red Flag conditions exist.

Preparedness Level V - Multiple large fires, all IA resources committed, significant LAL and Red Flag conditions.

PREPAREDNESS PLAN

PREPAREDNESS LEVEL 1

Little or no fire activity. Preseason preparedness duties being accomplished.

ERC: Below 5th percentile West and below 11th percentile East.

1000 hour: 18% and above.

Percentage of committed IA resources: <25%

Fire activity: Little or none

MANAGEMENT DIRECTION CONSIDERATION	RESPONSIBILITY
Pre-green stations and begin Input of daily weather from RAWs. Begin tracking weekly ERC trends when ERC hits 16. Analyze Preparedness Parameters, complete readiness reviews and refresher training.	FMO, AFMO and Dispatch.
Begin daily situation reporting to RMC as situation requires	Dispatch
Complete burn units in RX prescription	FMO
Full range of Appropriate Management and Wildland Fire Use strategies available in C and D polygons.	AFMO
Modified or Full response strategies appropriate in B polygons.	AFMO
Weekly Conference call with RMACC	Dispatch Center Manager

PREPAREDNESS LEVEL 2

Low to moderate fire activity. Interagency involvement occurring. Potential for Class B or Class C fire exists.

ERC: 5.1 to 25th percentile West and 11.1 to 28th percentile East.

1000 Hour: 14-17%

Fire activity: Multiple fires size class A and B. Potential exists for Class C fires (determined locally)

Percentage of committed IA Resources: 50%

Management Direction Consideration	Responsibility
Alert PAO- Coordinate news releases and fire activity information	FMO/Agency Administrator
Maintain communication with local units and sub-units concerning needs (prevention, pre-suppression, detection, and suppression).	FMO, AFMO and Dispatch
Aerial detection ordered after lightning storms when RH falls below 30% by 10:00 the following day or if lookouts report smoke the morning after lightning	AFMO
Full range of Appropriate Management Response and Wildland Fire Use strategies available in C and D Polygons.	AFMO, Zone FMOs FMO and Agency Administrators
Modified to Full strategies appropriate in B Polygons	AFMO, Zone FMOs
Sixth day staffing approved for Dispatch, Duty Officer and one Engine Crew at each station when Staffing level hits 4 and lightning or unusual human cause activity is occurring or is anticipated.	AFMO
ZFMO may assign project work with 20 minute response time. Notify Dispatch of Engine/Squad location prior to AM Briefing	ZFMO
Weather briefing broadcasted via radio.	Dispatch
Spot weather forecasts and/or updates required on all extended attack fires.	IAIC, Zone FMOs, AFMO., and Dispatch
Identify support needs for Dispatch, Management, and Suppression	FMO/Dispatch/Agency Administrator
Notify adjoining units/centers/RMACC of activity	Dispatch
AFMO/Duty Officer conducts daily briefing to Craig Center, IA resources, Agency Administrators and Cooperators. Information available direct in Craig Station at 1000 hrs., via conference call for out stations and on Craig Center Web site.	AFMO
AFMO/Duty Officer and ZFMO's 20 minutes available to Center/Station or readily available by phone.	AFMO

PREPAREDNESS LEVEL 3

Multiple fires occurring. Increased potential for escaped fires Class C or larger.

ERC: 25.1 to 75th percental West side and 28.1 to 87th percental East Side

1000 Hour: 10 - 15%

Percentage of committed IA resources: 75%

Fire activity: Multiple A, B, and C size fires. Potential for extended attack exists.

Predicted Red Flag with Lightning can bump PL 2 up to PL 3 for the duration of that weather event.

All items in above preparedness levels could be occurring plus:

Increased check-in frequency for non-fire field personnel.	Dispatch
Full suppression strategy implemented in B polygons with ERC >50 th percentile	AFMO
Consider suspension Wildland Fire Use in C Polygons with ERC >90 th percentile	FMO, AFMO
Confine strategy restricted in C polygons when ERC is >90 th . Confine strategy as suppression oriented response still be viable option when suppression resources are committed to higher priority fires.	AFMO
ZFMO's may assign project work with 2 minute response time. Notify AFMO evening prior at Planning and Strategy meeting via conference call when activated. Otherwise notify AFMO prior to AM briefing.	ZFMO, AFMO
Consider ordering or assigning an Intelligence Officer, FBA, Plans Chief, Logistics and additional dispatcher if ERC indices trend is above 54 and increasing.	Center Manager, AFMO
Evaluate need for fire restrictions, see Individual County Plans. Coordinate and share information with County Sheriffs	FMO, Agency Administrator
Consider activation of MAC groups (area/local)	Center Manager, FMO, Agency Administrator
Office staff meetings reiterating fire policy	Agency Administrator, FMO
Availability lists completed and in RMC as requested	Dispatch
Evaluate need for step-up replacement to 75% of normal staffing	AFMO
Local resources pre-positioned on days following lightning storms in areas that commonly have the greatest potential for new fire starts.	AFMO
Consider State Office severity request for extended shifts or six day staffing during periods of potential high fire activity (Staffing Level > 3+, Haines index 6) coupled with an ignition source (LAL 2+ or high human risk)	AFMO
Initiate bump-up of with in Unit resources.	Center Manager, AFMO
Insure units are within work/rest ration guidelines.	FMO, Agency Administrator
Track availability of Resource Advisors and Assign Type III Team members from local cadre. Place in 8 hour availability status.	AFMO/Center Manager
Initiate PM Planning and Strategy Meeting during periods of active initial attack and extended attack fires.	FMO, Center Manager

Preparedness Level 4

ERC: 75.1 to 95th percentile West Side and 87.1 to 97th percentile East Side

1000 hour – 8 – 9%

Percentage of committed IA Resources: full commitment.

Fire activity: Multiple A, B, C, and large fires. Extended attack occurring.

Predicted LAL 3 or Red Flag + conditions for PL3 could bump level to PL4 for the duration of that weather event.

All items in above level could be occurring plus:

Management Direction Consideration	Responsibility
Memo supporting availability for fire duty of non-fire personnel.	Agency Administrator
Daily conference call between Dispatch Center and RMCC	Dispatch Center Manager
Planning and Strategy meeting conducted in evening to produce following days Action Plan (ie. Daily Briefing format) ZFMO and AFMO determine preposition points or fire assignment needs.	AFMO, FMO, Plans, Center Manager
Consider severity request for additional resources, which may include the following: One to three Dispatch detailers, including an expanded dispatch organization; one type I crew(if Craig IHC is off unit), up to 3 type 5 engines, one six person smoke chaser squad, one fire operations specialist and one type III helicopter.	FMO, local MAC
Revisit state of readiness of Initial Attack resources, bump type 3 team to 2 hour availability.	AFMO, FMO, Zone FMOs
Consider suspension of Wildland Fire Use in D Polygons, except those that demonstrate low risk of escape.	FMO, AFMO, Agency Administrator
Unit managers to evaluate and document all RX fire activity (both active and planned), to assure plans and contingencies can be accomplished given the current forces committed. Stage III implementation plans available for review.	FMO, Zone FMOs, Agency Administrator
C Polygon fires placed under full suppression Strategy.	AFMO, Dispatch, Zone FMOs
B Polygon areas consider step-up deployment of air tactical resources on initial attack.	AFMO, Dispatch, Zone FMO
Dispatch Center remains open 24 hours, as needed	AFMO and Center Manager
ATGS on order and staged in Grand Junction or Craig airport	AFMO
Approve extended shift and sixth day coverage for fire staff, dispatchers and all engine crews at staffing level 3 and when dry lightning is expected or occurring.	AFMO
Implement first level fire restrictions.	FMO, MAC Group
Implement bump-up from neighboring Units	Center Manager, AFMO

Preparedness Level 5

ERC: 95th percentile and above West and 97th percentile and above East.

1000 hour: below 8%

Percentage of committed IA Resources: fully committed

Fire activity: Multiple large fires.

Existing conditions for PL4 plus LAL 2 could bump situation to PL5 for the duration of that weather event.

All items in above preparedness levels could be occurring plus.

Management Direction Consideration	Responsibility
No new prescribed fires or implementation of Wildland Fire Use without Regional MAC Group approval. Require those units with RX or Wildland Fire Use activity to report assessment of their ability to maintain fire(s) within RX prescription, stop any further ignition and suppress to a safe point where contingency resources can be released for wildfire activities.	FMO, AFMO, Regional/State Office Duty Officer, Agency Administrator
Approval for all engine crews, Dispatchers and Fire Staff for sixth day coverage and extended day work schedule for LAL 2 or potential human cause (special weekends, Holidays or events)	AFMO
Implement highest level of burn restrictions.	FMO, Local MAC Group